

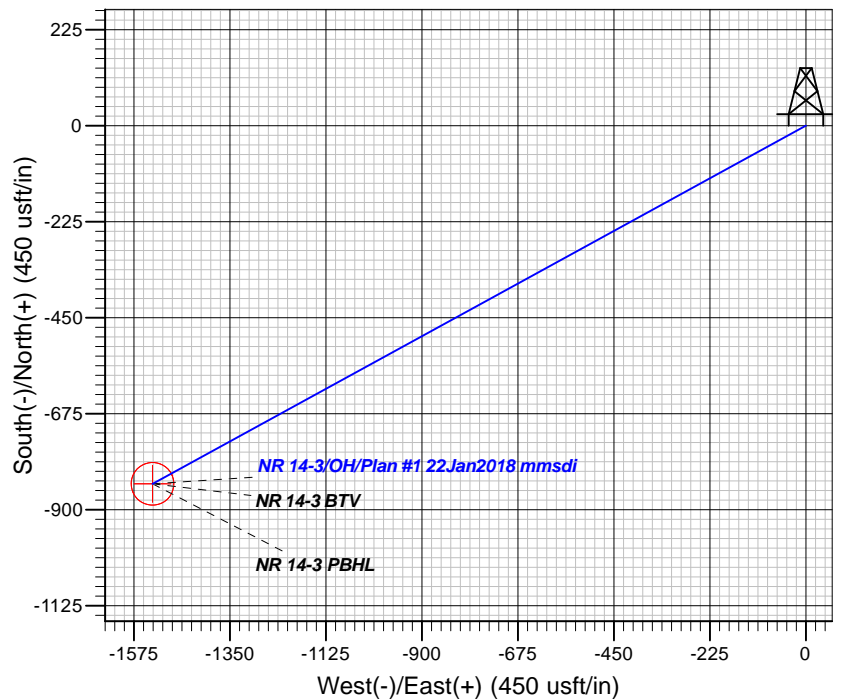
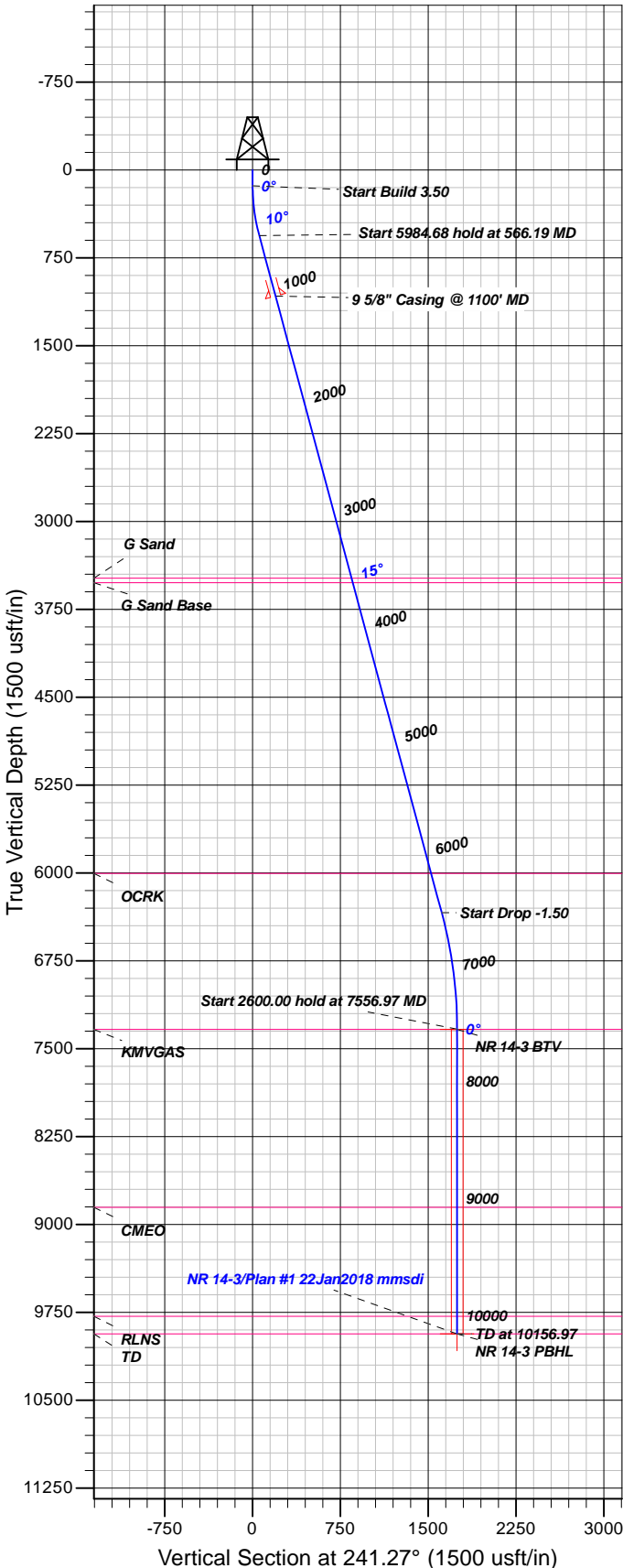


Azimuths to True North
Magnetic North: 9.48°

Magnetic Field
Strength: 51615.2snT
Dip Angle: 65.82°
Date: 1/17/2018
Model: HDGM

Well Details: NR 14-3

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1634880.50	2329775.58	39.5524576	-107.8771719	NR 14-3 (A14)



FORMATION TOP DETAILS

TVDP	MD	Formation
3484.00	3593.37	G Sand
3524.00	3634.80	G Sand Base
6004.00	6203.39	OCRK
7334.00	7556.97	KMGV GAS
8854.00	9076.97	CMEO
9784.00	10006.97	RLNS
9934.00	10156.97	TD

Plan: Plan #1 22Jan2018 mmsdi

21:42, February 07 2018
Created By: Mel Mireles

PROJECT DETAILS: Garfield County, CO NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name	Size
1076.62	1100.00	5/8" Casing @ 1100' MD	9.62

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	566.19	15.09	241.27	561.22	-27.14	-49.51	3.50	241.27	56.46	
4	6550.86	15.09	241.27	6339.49	-776.04	-1415.92	0.00	0.00	1614.64	
5	7556.97	0.00	0.00	7334.00	-839.36	-1531.44	1.50	180.00	1746.38	NR 14-3 BTV
6	10156.97	0.00	0.00	9934.00	-839.36	-1531.44	0.00	0.00	1746.38	NR 14-3 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NR 14-3 BTV	7334.00	-839.36	-1531.44	1634081.50	2328222.70	39.5501531	-107.8826028	Circle (Radius: 50.00)
- plan hits target center								
NR 14-3 PBHL	9934.00	-839.36	-1531.44	1634081.50	2328222.70	39.5501531	-107.8826028	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

NR 23-3 Pad

NR 14-3 - Slot NR 14-3 (A14)

OH

Plan: Plan #1 22Jan2018 mmsdi

Standard Planning Report

07 February, 2018



Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 14-3 - Slot NR 14-3 (A14)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 14-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Project	Garfield County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	NR 23-3 Pad			
Site Position:		Northing:	1,634,904.55 usft	Latitude: 39.5525224
From: Map		Easting:	2,329,757.66 usft	Longitude: -107.8772377
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.50 °

Well	NR 14-3 - Slot NR 14-3 (A14)			
Well Position	+N/-S	-23.57 usft	Northing:	1,634,880.50 usft
	+E/-W	18.54 usft	Easting:	2,329,775.58 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,720.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/17/2018	9.48	65.82	51,615

Design	Plan #1 22Jan2018 mmsdi			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	241.27

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
566.19	15.09	241.27	561.22	-27.14	-49.51	3.50	3.50	0.00	241.27	
6,550.86	15.09	241.27	6,339.49	-776.04	-1,415.92	0.00	0.00	0.00	0.00	
7,556.97	0.00	0.00	7,334.00	-839.36	-1,531.44	1.50	-1.50	0.00	180.00	NR 14-3 BTV
10,156.97	0.00	0.00	9,934.00	-839.36	-1,531.44	0.00	0.00	0.00	0.00	NR 14-3 PBHL

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Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 14-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.50									
200.00	2.28	241.27	199.98	-0.62	-1.13	1.29	3.50	3.50	0.00
300.00	5.78	241.27	299.72	-3.99	-7.29	8.31	3.50	3.50	0.00
400.00	9.28	241.27	398.84	-10.29	-18.77	21.40	3.50	3.50	0.00
500.00	12.78	241.27	496.98	-19.48	-35.54	40.52	3.50	3.50	0.00
566.19	15.09	241.27	561.22	-27.14	-49.51	56.46	3.50	3.50	0.00
Start 5984.68 hold at 566.19 MD									
600.00	15.09	241.27	593.87	-31.37	-57.23	65.26	0.00	0.00	0.00
700.00	15.09	241.27	690.42	-43.88	-80.06	91.30	0.00	0.00	0.00
800.00	15.09	241.27	786.97	-56.39	-102.89	117.34	0.00	0.00	0.00
900.00	15.09	241.27	883.52	-68.91	-125.73	143.37	0.00	0.00	0.00
1,000.00	15.09	241.27	980.07	-81.42	-148.56	169.41	0.00	0.00	0.00
1,100.00	15.09	241.27	1,076.62	-93.94	-171.39	195.44	0.00	0.00	0.00
9 5/8" Casing @ 1100' MD									
1,200.00	15.09	241.27	1,173.17	-106.45	-194.22	221.48	0.00	0.00	0.00
1,300.00	15.09	241.27	1,269.72	-118.96	-217.05	247.52	0.00	0.00	0.00
1,400.00	15.09	241.27	1,366.27	-131.48	-239.88	273.55	0.00	0.00	0.00
1,500.00	15.09	241.27	1,462.83	-143.99	-262.72	299.59	0.00	0.00	0.00
1,600.00	15.09	241.27	1,559.38	-156.50	-285.55	325.62	0.00	0.00	0.00
1,700.00	15.09	241.27	1,655.93	-169.02	-308.38	351.66	0.00	0.00	0.00
1,800.00	15.09	241.27	1,752.48	-181.53	-331.21	377.70	0.00	0.00	0.00
1,900.00	15.09	241.27	1,849.03	-194.04	-354.04	403.73	0.00	0.00	0.00
2,000.00	15.09	241.27	1,945.58	-206.56	-376.88	429.77	0.00	0.00	0.00
2,100.00	15.09	241.27	2,042.13	-219.07	-399.71	455.81	0.00	0.00	0.00
2,200.00	15.09	241.27	2,138.68	-231.59	-422.54	481.84	0.00	0.00	0.00
2,300.00	15.09	241.27	2,235.23	-244.10	-445.37	507.88	0.00	0.00	0.00
2,400.00	15.09	241.27	2,331.79	-256.61	-468.20	533.91	0.00	0.00	0.00
2,500.00	15.09	241.27	2,428.34	-269.13	-491.03	559.95	0.00	0.00	0.00
2,600.00	15.09	241.27	2,524.89	-281.64	-513.87	585.99	0.00	0.00	0.00
2,700.00	15.09	241.27	2,621.44	-294.15	-536.70	612.02	0.00	0.00	0.00
2,800.00	15.09	241.27	2,717.99	-306.67	-559.53	638.06	0.00	0.00	0.00
2,900.00	15.09	241.27	2,814.54	-319.18	-582.36	664.09	0.00	0.00	0.00
3,000.00	15.09	241.27	2,911.09	-331.70	-605.19	690.13	0.00	0.00	0.00
3,100.00	15.09	241.27	3,007.64	-344.21	-628.03	716.17	0.00	0.00	0.00
3,200.00	15.09	241.27	3,104.19	-356.72	-650.86	742.20	0.00	0.00	0.00
3,300.00	15.09	241.27	3,200.75	-369.24	-673.69	768.24	0.00	0.00	0.00
3,400.00	15.09	241.27	3,297.30	-381.75	-696.52	794.28	0.00	0.00	0.00
3,500.00	15.09	241.27	3,393.85	-394.26	-719.35	820.31	0.00	0.00	0.00
3,593.37	15.09	241.27	3,484.00	-405.95	-740.67	844.62	0.00	0.00	0.00
G Sand									
3,600.00	15.09	241.27	3,490.40	-406.78	-742.18	846.35	0.00	0.00	0.00
3,634.80	15.09	241.27	3,524.00	-411.13	-750.13	855.41	0.00	0.00	0.00
G Sand Base									
3,700.00	15.09	241.27	3,586.95	-419.29	-765.02	872.38	0.00	0.00	0.00
3,800.00	15.09	241.27	3,683.50	-431.80	-787.85	898.42	0.00	0.00	0.00
3,900.00	15.09	241.27	3,780.05	-444.32	-810.68	924.46	0.00	0.00	0.00
4,000.00	15.09	241.27	3,876.60	-456.83	-833.51	950.49	0.00	0.00	0.00
4,100.00	15.09	241.27	3,973.15	-469.35	-856.34	976.53	0.00	0.00	0.00
4,200.00	15.09	241.27	4,069.71	-481.86	-879.17	1,002.57	0.00	0.00	0.00
4,300.00	15.09	241.27	4,166.26	-494.37	-902.01	1,028.60	0.00	0.00	0.00
4,400.00	15.09	241.27	4,262.81	-506.89	-924.84	1,054.64	0.00	0.00	0.00

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Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 14-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	15.09	241.27	4,359.36	-519.40	-947.67	1,080.67	0.00	0.00	0.00
4,600.00	15.09	241.27	4,455.91	-531.91	-970.50	1,106.71	0.00	0.00	0.00
4,700.00	15.09	241.27	4,552.46	-544.43	-993.33	1,132.75	0.00	0.00	0.00
4,800.00	15.09	241.27	4,649.01	-556.94	-1,016.17	1,158.78	0.00	0.00	0.00
4,900.00	15.09	241.27	4,745.56	-569.46	-1,039.00	1,184.82	0.00	0.00	0.00
5,000.00	15.09	241.27	4,842.11	-581.97	-1,061.83	1,210.85	0.00	0.00	0.00
5,100.00	15.09	241.27	4,938.67	-594.48	-1,084.66	1,236.89	0.00	0.00	0.00
5,200.00	15.09	241.27	5,035.22	-607.00	-1,107.49	1,262.93	0.00	0.00	0.00
5,300.00	15.09	241.27	5,131.77	-619.51	-1,130.32	1,288.96	0.00	0.00	0.00
5,400.00	15.09	241.27	5,228.32	-632.02	-1,153.16	1,315.00	0.00	0.00	0.00
5,500.00	15.09	241.27	5,324.87	-644.54	-1,175.99	1,341.04	0.00	0.00	0.00
5,600.00	15.09	241.27	5,421.42	-657.05	-1,198.82	1,367.07	0.00	0.00	0.00
5,700.00	15.09	241.27	5,517.97	-669.56	-1,221.65	1,393.11	0.00	0.00	0.00
5,800.00	15.09	241.27	5,614.52	-682.08	-1,244.48	1,419.14	0.00	0.00	0.00
5,900.00	15.09	241.27	5,711.07	-694.59	-1,267.32	1,445.18	0.00	0.00	0.00
6,000.00	15.09	241.27	5,807.63	-707.11	-1,290.15	1,471.22	0.00	0.00	0.00
6,100.00	15.09	241.27	5,904.18	-719.62	-1,312.98	1,497.25	0.00	0.00	0.00
6,200.00	15.09	241.27	6,000.73	-732.13	-1,335.81	1,523.29	0.00	0.00	0.00
6,203.39	15.09	241.27	6,004.00	-732.56	-1,336.58	1,524.17	0.00	0.00	0.00
OCRK									
6,300.00	15.09	241.27	6,097.28	-744.65	-1,358.64	1,549.33	0.00	0.00	0.00
6,400.00	15.09	241.27	6,193.83	-757.16	-1,381.47	1,575.36	0.00	0.00	0.00
6,500.00	15.09	241.27	6,290.38	-769.67	-1,404.31	1,601.40	0.00	0.00	0.00
6,550.86	15.09	241.27	6,339.49	-776.04	-1,415.92	1,614.64	0.00	0.00	0.00
Start Drop -1.50									
6,600.00	14.35	241.27	6,387.01	-782.04	-1,426.87	1,627.13	1.50	-1.50	0.00
6,700.00	12.85	241.27	6,484.20	-793.35	-1,447.50	1,650.65	1.50	-1.50	0.00
6,800.00	11.35	241.27	6,581.98	-803.42	-1,465.88	1,671.62	1.50	-1.50	0.00
6,900.00	9.85	241.27	6,680.27	-812.27	-1,482.02	1,690.02	1.50	-1.50	0.00
7,000.00	8.35	241.27	6,779.01	-819.87	-1,495.90	1,705.84	1.50	-1.50	0.00
7,100.00	6.85	241.27	6,878.12	-826.23	-1,507.50	1,719.08	1.50	-1.50	0.00
7,200.00	5.35	241.27	6,977.55	-831.35	-1,516.83	1,729.71	1.50	-1.50	0.00
7,300.00	3.85	241.27	7,077.23	-835.20	-1,523.87	1,737.74	1.50	-1.50	0.00
7,400.00	2.35	241.27	7,177.08	-837.81	-1,528.62	1,743.15	1.50	-1.50	0.00
7,500.00	0.85	241.27	7,277.04	-839.15	-1,531.07	1,745.95	1.50	-1.50	0.00
7,556.97	0.00	0.00	7,334.00	-839.36	-1,531.44	1,746.38	1.50	-1.50	208.41
Start 2600.00 hold at 7556.97 MD - KMGAS - NR 14-3 BTW									
7,600.00	0.00	0.00	7,377.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
7,700.00	0.00	0.00	7,477.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
7,800.00	0.00	0.00	7,577.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
7,900.00	0.00	0.00	7,677.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,000.00	0.00	0.00	7,777.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,100.00	0.00	0.00	7,877.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,200.00	0.00	0.00	7,977.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,300.00	0.00	0.00	8,077.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,400.00	0.00	0.00	8,177.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,500.00	0.00	0.00	8,277.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,600.00	0.00	0.00	8,377.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,700.00	0.00	0.00	8,477.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,800.00	0.00	0.00	8,577.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
8,900.00	0.00	0.00	8,677.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,000.00	0.00	0.00	8,777.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,076.97	0.00	0.00	8,854.00	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00

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Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 14-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
CMEO									
9,100.00	0.00	0.00	8,877.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,200.00	0.00	0.00	8,977.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,300.00	0.00	0.00	9,077.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,400.00	0.00	0.00	9,177.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,500.00	0.00	0.00	9,277.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,600.00	0.00	0.00	9,377.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,700.00	0.00	0.00	9,477.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,800.00	0.00	0.00	9,577.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
9,900.00	0.00	0.00	9,677.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
10,000.00	0.00	0.00	9,777.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
10,006.97	0.00	0.00	9,784.00	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
RLNS									
10,100.00	0.00	0.00	9,877.03	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
10,156.97	0.00	0.00	9,934.00	-839.36	-1,531.44	1,746.38	0.00	0.00	0.00
TD at 10156.97 - TD - NR 14-3 PBHL									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NR 14-3 BTV - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,334.00	-839.36	-1,531.44	1,634,081.50	2,328,222.70	39.5501532	-107.8826029
NR 14-3 PBHL - plan hits target center - Point	0.00	0.00	9,934.00	-839.36	-1,531.44	1,634,081.50	2,328,222.70	39.5501532	-107.8826029

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,076.62	9 5/8" Casing @ 1100' MD	9.62	13.50	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,593.37	3,484.00	G Sand		0.00	0.00
3,634.80	3,524.00	G Sand Base		0.00	0.00
6,203.39	6,004.00	OCRK		0.00	0.00
7,556.97	7,334.00	KMVGAS		0.00	0.00
9,076.97	8,854.00	CMEO		0.00	0.00
10,006.97	9,784.00	RLNS		0.00	0.00
10,156.97	9,934.00	TD		0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 14-3 - Slot NR 14-3 (A14)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 14-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
135.00	135.00	0.00	0.00	Start Build 3.50
566.19	561.22	-27.14	-49.51	Start 5984.68 hold at 566.19 MD
6,550.86	6,339.49	-776.04	-1,415.92	Start Drop -1.50
7,556.97	7,334.00	-839.36	-1,531.44	Start 2600.00 hold at 7556.97 MD
10,156.97	9,934.00	-839.36	-1,531.44	TD at 10156.97